

**Experiment Number:** 20605 - 99  
**Test Type:** SPECIAL STUDY  
**Route:** GAVAGE  
**Species/Strain:** RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
Gum Guggul Extract  
**CAS Number:** GUMGUGGULEXT

**Date Report Requested:** 05/13/2019  
**Time Report Requested:** 15:00:28  
**First Dose M/F:** 07/23/09 / 07/24/09  
**Lab:** BAT

**NTP Study Number:** C20605  
**Lock Date:** Not Entered.  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.2.3\_002  
**PWG Approval Date:** NONE

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Route: GAVAGE

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First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>MALE</b> <b>0 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8	8	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	
		2	2	2	2	2	2	2	2	3	
		1	2	3	4	5	6	7	8	9	
<b>* TOTALS</b>											

**ALIMENTARY SYSTEM**

Liver	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Pancreas	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**CARDIOVASCULAR SYSTEM**

Blood Vessel	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Heart	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Cardiomyopathy				1							<b>1 1.0</b>

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Hypertrophy							1				<b>1 1.0</b>
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Infiltration Cellular, Mononuclear Cell							1				<b>1 1.0</b>

**GENERAL BODY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 0 mg/kg	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2
		8	8	8	8	8	8	8	8	8	8	8	8	8
		1	1	1	1	1	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2	2	2	2	3	3
		1	2	3	4	5	6	7	8	9	0			
													<b>* TOTALS</b>	

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Degeneration					1									1 1.0
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	10

HEMATOPOIETIC SYSTEM

Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	10
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INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
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First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>MALE</b> <b>0 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8		
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1	1	
		2	2	2	2	2	2	2	3		
		1	2	3	4	5	6	7	8	0	
<b>* TOTALS</b>											

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Nephropathy		1				1		1			<b>3 1.0</b>

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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Date Report Requested: 05/13/2019

Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>MALE</b> <b>62.5 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2
		8	8	8	8	8	8	8	8	8	8	8	8	8
		1	1	1	1	1	1	1	1	1	1	1	1	1
		3	3	3	3	3	3	3	3	3	3	3	4	4
		1	2	3	4	5	6	7	8	9	0	0	0	0
													<b>* TOTALS</b>	

**ALIMENTARY SYSTEM**

Stomach, Forestomach  
Mineralization

+  
2

+  
1

2

2 1.5

**CARDIOVASCULAR SYSTEM**

NONE

**ENDOCRINE SYSTEM**

NONE

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

NONE

**HEMATOPOIETIC SYSTEM**

NONE

**INTEGUMENTARY SYSTEM**

NONE

**MUSCULOSKELETAL SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS MALE</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2
		8	8	8	8	8	8	8	8	8	8	8	8	8
<b>62.5 mg/kg</b>	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	1	1	1	1
		3	3	3	3	3	3	3	3	3	3	3	4	4
		1	2	3	4	5	6	7	8	9	0	0	0	0
<b>* TOTALS</b>														

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS MALE</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	<b>125 mg/kg</b>	ANIMAL ID	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2			0	0	0	0	0	0	0	0	0
		8	8	8	8	8	8	8	8	8			1	1	1	1	1	1	1	1	1
		1	2	3	4	5	6	7	8	9			0	4	4	4	4	4	4	4	5
												<b>* TOTALS</b>									

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>MALE</b> <b>250 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8	8	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1		
		5	5	5	5	5	5	5	6		
		1	2	3	4	5	6	7	8	9	
<b>* TOTALS</b>											

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 1000 mg/kg	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8	8	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	
		7	7	7	7	7	7	7	7	8	
		1	2	3	4	5	6	7	8	9	
<b>* TOTALS</b>											

**ALIMENTARY SYSTEM**

Liver	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Pancreas	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**CARDIOVASCULAR SYSTEM**

Blood Vessel	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Heart	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	<b>10</b>		
Hypertrophy			1		1			1		2		<b>4</b>	<b>1.3</b>
Vacuolization Cytoplasmic	1						1					<b>2</b>	<b>1.0</b>
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	<b>10</b>		
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	<b>10</b>		
Parathyroid Gland	+	+	+	+	+	+	M	+	+	+	<b>9</b>		
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>		

**GENERAL BODY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
HARLAN SPRAGUE DAWLEY RATS MALE	2	2	2	2	2	2	2	2	2	2
	8	8	8	8	8	8	8	8	8	8
1000 mg/kg	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	1	1	1	1	1	1	1	1	1	1
	7	7	7	7	7	7	7	7	7	8
	1	2	3	4	5	6	7	8	9	0
<b>* TOTALS</b>										

**GENITAL SYSTEM**

Epididymis	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Prostate	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Testes	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**HEMATOPOIETIC SYSTEM**

Spleen	+	+	+	+	+	+	+	+	+	+	<b>10</b>
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**INTEGUMENTARY SYSTEM**

NONE

**MUSCULOSKELETAL SYSTEM**

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>MALE</b> <b>1000 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2
		8	8	8	8	8	8	8	8	8
	ANIMAL ID	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1
		7	7	7	7	7	7	7	7	8
		1	2	3	4	5	6	7	8	9

\* TOTALS

NONE

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	10
Developmental Malformation		3									1 3.0
Nephropathy		1		1	1		1		1	1	6 1.0

\*\*\* END OF MALE DATA \*\*\*

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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 Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	<b>HARLAN SPRAGUE DAWLEY RATS FEMALE</b>	0	0	0	0	0	0	0	0	0
<b>0 mg/kg</b>	2	2	2	2	2	2	2	2	2	2
<b>ANIMAL ID</b>	8	8	8	8	8	8	8	8	8	8
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1
	8	8	8	8	8	8	8	8	8	9
	1	2	3	4	5	6	7	8	9	0
<b>* TOTALS</b>										

**ALIMENTARY SYSTEM**

Liver	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Pancreas	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**CARDIOVASCULAR SYSTEM**

Blood Vessel	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Infiltration Cellular, Mononuclear Cell					1						<b>1 1.0</b>
Heart	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Hypertrophy	1										<b>1 1.0</b>
Vacuolization Cytoplasmic					1			1			<b>2 1.0</b>
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Parathyroid Gland	+	+	M	+	+	+	+	+	+	+	<b>9</b>
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**GENERAL BODY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
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Lab: BAT

HARLAN SPRAGUE DAWLEY RATS FEMALE 0 mg/kg	DAY ON TEST	0	0	0	0	0	0	0	0	0	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8	8	
		1	1	1	1	1	1	1	1	1	
		8	8	8	8	8	8	8	8	9	
		1	2	3	4	5	6	7	8	9	
<b>* TOTALS</b>											

GENITAL SYSTEM

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	10
Ovary	+	+	+	+	+	+	+	+	+	+	10
Uterus	+	+	+	+	+	+	+	+	+	+	10
Hyperplasia, Cystic			1								1 1.0

HEMATOPOIETIC SYSTEM

Spleen	+	+	+	+	+	+	+	+	+	+	10
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INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20605 - 99

Test Type: SPECIAL STUDY

Route: GAVAGE

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Gum Guggul Extract

CAS Number: GUMGUGGULEXT

Date Report Requested: 05/13/2019

Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>FEMALE</b> <b>0 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	<b>* TOTALS</b>
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8	8	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	
		8	8	8	8	8	8	8	8	9	
		1	2	3	4	5	6	7	8	9	

NONE

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Nephropathy	1		1		1	1					<b>4 1.0</b>

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked





Experiment Number: 20605 - 99

Test Type: SPECIAL STUDY

Route: GAVAGE

Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Gum Guggul Extract

CAS Number: GUMGUGGULEXT

Date Report Requested: 05/13/2019

Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
HARLAN SPRAGUE DAWLEY RATS FEMALE	2	2	2	2	2	2	2	2	2	2
	8	8	8	8	8	8	8	8	8	8
125 mg/kg	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	2	2	2	2	2	2	2	2	2	2
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0
<b>* TOTALS</b>										

**ALIMENTARY SYSTEM**

NONE

**CARDIOVASCULAR SYSTEM**

NONE

**ENDOCRINE SYSTEM**

NONE

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

NONE

**HEMATOPOIETIC SYSTEM**

Thymus		+								1
Hemorrhage		1								1 1.0

**INTEGUMENTARY SYSTEM**

NONE

**MUSCULOSKELETAL SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

Experiment Number: 20605 - 99

Test Type: SPECIAL STUDY

Route: GAVAGE

Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Gum Guggul Extract

CAS Number: GUMGUGGULEXT

Date Report Requested: 05/13/2019

Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>FEMALE</b> <b>125 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	<b>* TOTALS</b>
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8	8	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		0	0	0	0	0	0	0	0	1	
		1	2	3	4	5	6	7	8	9	
										0	

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 20605 - 99

Test Type: SPECIAL STUDY

Route: GAVAGE

Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Gum Guggul Extract

CAS Number: GUMGUGGULEXT

Date Report Requested: 05/13/2019

Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>FEMALE</b> <b>250 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	<b>* TOTALS</b>
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8	8	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		1	1	1	1	1	1	1	1	2	
		1	2	3	4	5	6	7	8	9	
		1	2	3	4	5	6	7	8	0	

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 20605 - 99

Test Type: SPECIAL STUDY

Route: GAVAGE

Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Gum Guggul Extract

CAS Number: GUMGUGGULEXT

Date Report Requested: 05/13/2019

Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>FEMALE</b> <b>500 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	<b>* TOTALS</b>
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8	8	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		2	2	2	2	2	2	2	2	3	
		1	2	3	4	5	6	7	8	9	
		0	0	0	0	0	0	0	0	0	

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20605 - 99  
 Test Type: SPECIAL STUDY  
 Route: GAVAGE  
 Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Gum Guggul Extract  
 CAS Number: GUMGUGGULEXT

Date Report Requested: 05/13/2019  
 Time Report Requested: 15:00:28  
 First Dose M/F: 07/23/09 / 07/24/09  
 Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	ANIMAL ID
	0	0	0	0	0	0	0	0	0	0	
2	2	2	2	2	2	2	2	2	2	2	2
8	8	8	8	8	8	8	8	8	8	8	8
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
1	2	3	3	4	5	6	7	8	9	4	0
<b>* TOTALS</b>											

**ALIMENTARY SYSTEM**

Liver	+	+	+	+	+	+	+	+	+	+	10
Fatty Change										1	1 1.0
Pancreas	+	+	+	+	+	+	+	+	+	+	10

**CARDIOVASCULAR SYSTEM**

Blood Vessel	+	+	+	+	+	+	+	+	+	+	10
Heart	+	+	+	+	+	+	+	+	+	+	10

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Hypertrophy		1		1					1	1	4 1.0
Vacuolization Cytoplasmic						1					1 1.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	M	+	+	+	M	8
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

**GENERAL BODY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20605 - 99

Test Type: SPECIAL STUDY

Route: GAVAGE

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Gum Guggul Extract

CAS Number: GUMGUGGULEXT

Date Report Requested: 05/13/2019

Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

HARLAN SPRAGUE DAWLEY RATS FEMALE 1000 mg/kg	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
		8	8	8	8	8	8	8	8	8	8	8	8	8	8
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3	3	3	3	3	4	4
		1	2	3	4	5	6	7	8	9	0	0	0	0	0
<b>* TOTALS</b>															

GENITAL SYSTEM

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Hyperplasia, Cystic			2		2							2			3 2.0

HEMATOPOIETIC SYSTEM

Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Thymus					+										1
Hemorrhage					4										1 4.0
Inflammation, Chronic					4										1 4.0

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

Experiment Number: 20605 - 99

Test Type: SPECIAL STUDY

Route: GAVAGE

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Gum Guggul Extract

CAS Number: GUMGUGGULEXT

Date Report Requested: 05/13/2019

Time Report Requested: 15:00:28

First Dose M/F: 07/23/09 / 07/24/09

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS</b> <b>FEMALE</b> <b>1000 mg/kg</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	* TOTALS
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		8	8	8	8	8	8	8	8	8	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		3	3	3	3	3	3	3	3	4	
		1	2	3	4	5	6	7	8	9	
		0	0	0	0	0	0	0	0	0	

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	10
Nephropathy						1				1 1.0

\*\*\* END OF REPORT \*\*\*

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked